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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MANEESH AGRAWALA, SUMIT BASU,
STEVEN M. DRUCKER, RONALD KEITH LOGAN,
TRAUSTI THOR KRISTJANSSON, TIM PAEK,
KENTARO TOYAMA, and ANDREW DAVID WILSON

Appeal 2009-010649
Application 10/788,503
Technology Center 2100

Before JOHN A. JEFFERY, THU A. DANG, and
CAROLYN D. THOMAS, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-29 and 31-40. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants' invention enables navigating and browsing hypertext documents on an interactive shared display by converting document components to include alternate component activation tags. *See generally* Spec. 4-5. Claim 1 is illustrative with a key disputed limitation emphasized:

1. A method of using a browsing system to browse a hypertext document, the method comprising:
 - converting components in a hypertext document to include alternate component activation tags;
 - controlling a shared display module to display the alternate component activation tags with the converted components in the hypertext document, wherein the shared display module is simultaneously viewable by a plurality of users of which each user is simultaneously interacting with different portable input devices; and
 - activating the converted components in the hypertext document displayed on the shared display module by receiving input signals related to the alternate component activation tags from the different portable input devices.*

The Examiner relies on the following as evidence of unpatentability:

Sotomayor	US 5,708,825	Jan. 13, 1998
Borman	US 6,226,655 B1	May 1, 2001
Giacalone	US 2001/0052000 A1	Dec. 13, 2001
Chiu	US 2002/0107888 A1	Aug. 8, 2002
Bjurstrom	US 6,594,348 B1	July 15, 2003
Lai	US 6,912,326 B2	June 28, 2005 (filed May 21, 2002)
Buckley	WO 03/083717 A1	Oct. 9, 2003

Andrew S. Tanenbaum, MODERN OPERATING SYSTEMS 132-51 (2d ed. 2001) ("Tanenbaum").

THE REJECTIONS

1. The Examiner rejected claims 1-6, 14-16, 20-25, 27, 28, 31, 33, 34, and 37-39 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, and Buckley. Ans. 3-15.¹
2. The Examiner rejected claims 7 and 9 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, Buckley, and Lai. Ans. 15-16.
3. The Examiner rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, Buckley, Lai, and Sotomayor. Ans. 16-17.
4. The Examiner rejected claims 10-13, 17-19, 29, 35, 36, and 40 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, Buckley, and Borman. Ans. 17-20.
5. The Examiner rejected claim 26 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, Buckley, and Tanenbaum. Ans. 20-21.
6. The Examiner rejected claim 32 under 35 U.S.C. § 103(a) as unpatentable over Bjurstrom, Chiu, Buckley, and Giacalone. Ans. 21-22.

THE OBVIOUSNESS REJECTION OVER BJURSTROM, CHIU, AND BUCKLEY

Regarding representative claim 1, the Examiner finds that Bjurstrom discloses a system for browsing hypertext documents with every recited feature except for (1) controlling a display module to display alternate

¹ Throughout this opinion, we refer to (1) the Appeal Brief filed November 6, 2007 (supplemented December 17, 2008); (2) the Examiner's Answer mailed February 5, 2009; and (3) the Reply Brief filed February 19, 2008.

component activation tags with converted components in the document; (2) activating the displayed document's converted components via received input signals from different portable input devices; and (3) a simultaneously-viewable shared display module. Ans. 3-6, 22-27. The Examiner, however, cites Chiu and Buckley to cure these deficiencies in concluding that the claim would have been obvious. *Id.*

Appellants argue that the cited prior art does not teach or suggest activating the converted components in a hypertext document on the shared display module by receiving input signals related to the alternate component activation tags from different portable input devices as claimed. App. Br. 9-10; Reply Br. 1-2. The issue before us, then, is as follows:

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Bjurstrom, Chiu, and Buckley collectively would have taught or suggested activating converted components in a hypertext document on a shared display module by receiving input signals related to alternate component activation tags from different portable input devices?

FINDINGS OF FACT (FF)

1. We adopt the Examiner's factual findings regarding Bjurstrom, Chiu, and Buckley as our own. Ans. 3-6, 22-27.
2. Bjurstrom's voice browser 110 transforms content of HTML pages to audio output sent to a telephone 100. The telephone has a keypad and generates Dual Tone MultiFrequency (DTMF) tones that are transmitted to

the voice browser via telecommunications network 150. Bjurstrom, col. 5, ll. 39-58; Fig. 1.

3. Chiu's system allows users to browse online using numeric keys by (1) sorting plural hyperlinks displayed on a web page; (2) marking each hyperlink with a corresponding number; and (3) connecting to and displaying another web page associated with the hyperlink responsive to an input number. The web page is displayed with hyperlinks and associated numberings. Chiu, ¶¶ 0007, 0017-20; 0028-29; Fig. 3 (illustrating web page with numbers "5" and "6" associated with particular hyperlinks).

4. Chiu notes that a television can be used as the display output. Chiu, ¶ 0028.

5. Buckley's multi-user display system includes a communal (shared) display screen 10 viewable to users of viewing terminals 1-4 (e.g., personal digital assistants) with browsing software. The server is responsive to commands from a user terminal which outputs the requesting terminal's display to the communal display. Buckley, Abstract; 1:28-30; 3:13-17; 4:9-11; Fig. 1.

ANALYSIS

Based on the record before us, we find no error in the Examiner's obviousness rejection of representative claim 1. As the Examiner indicates (Ans. 24), Bjurstrom's voice browser converts components in a hypertext (HTML) document via an object model to enable users with mobile phones to navigate web pages by pressing particular keys on the phone's keypad. FF 1. And as the Examiner indicates (Ans. 24-25), these converted components would include alternate component activation tags such that

they are activated by receiving the phone's DTMF tones associated with respective numeric keys. *See* FF 1. Moreover, Bjurstrom at least implies that multiple users can use the voice browser system to browse documents with their respective phones as the Examiner indicates in view of the network-based connection between the phone and the voice browser's server shown in Bjurstrom's Figure 1.² This network-based functionality therefore at least suggests activating the converted components in the voice browser by receiving input signals (i.e., DTMF signals) from different portable input devices, namely the users' phones. *See* FF 1-2.

To be sure, Bjurstrom's voice browser does not display these converted hypertext document components and tags, let alone display them on a shared display module; rather, Bjurstrom is an audio-based system. *See id.* Nevertheless, we see no error in the Examiner's reliance on Chiu (Ans. 5, 25-26) for the notion that web pages and their associated hyperlinks can be likewise displayed on a screen such the pages would be visually perceptible to multiple users simultaneously. Notably, Chiu displays not only web pages and hyperlinks, but also numerals that correspond to particular hyperlinks to enable numeric-key browsing. FF 3. That both Bjurstrom and Chiu enable browsing with numeric keys only bolsters our conclusion that visually displaying a hyperlinked page with its alternate component activation tags would have been obvious either in addition to—or in lieu of—the audible presentation of this data in Bjurstrom. And as the

² *See* Ans. 24 (noting that Bjurstrom implies that each user uses their own telephone to access information via the voice browser).

Examiner indicates (Ans. 25), Chiu's displaying these pages on a television (FF 4) would enable multiple users to simultaneously view the displayed pages on this "shared display module."

Moreover, we see no error in the Examiner's reliance on Buckley for the notion that enabling multiple users to simultaneously interact with such a shared display module via their respective portable devices would have been obvious. Ans. 26-27; FF 5. Given these collective teachings, skilled artisans would recognize that activating the simultaneously-viewable converted components in the Bjurstrom/Chiu system via different portable input devices would have been obvious, for this enhancement predictably uses prior art elements according to their established functions—an obvious improvement. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

We reach a similar conclusion regarding activating browsing modes recited in claim 15 for the reasons noted above and indicated by the Examiner. Ans. 27-29. We are therefore not persuaded that the Examiner erred in rejecting claims 1 and 15, and claims 2-6, 14, 16, 20-25, 27, 28, 31, 33, 34, and 37-39 not separately argued with particularity.³

THE OBVIOUSNESS REJECTIONS OF CLAIMS 7-9 AND 32

We will also sustain the Examiner's obviousness rejections of (1) claims 7 and 9 over Bjurstrom, Chiu, Buckley, and Lai; (2) claim 8 over Bjurstrom, Chiu, Buckley, Lai, and Sotomayor; and (3) claim 32 over Bjurstrom, Chiu, Buckley, and Giacalone. Ans. 15-17, 21-22. Appellants

³ Although Appellants nominally argue some of these claims separately (App. Br. 11-13), these arguments are similar to previous arguments and our discussion applies equally to these claims as well.

do not particularly point out errors in the Examiner's reasoning to overcome the Examiner's conclusion of obviousness for these claims, but merely reiterate similar arguments made in connection with claims 1 and 22. App. Br. 13, 15. We are not persuaded by these arguments, however, for the reasons previously discussed. The rejections are therefore sustained.

THE OBVIOUSNESS REJECTION OVER BJURSTROM, CHIU, BUCKLEY, AND BORMAN

Regarding representative claim 10, the Examiner finds that Bjurstrom, Chiu, and Buckley collectively teach or suggest every recited feature except for automated browsing modes, but cites Borman to cure this deficiency in concluding that the claim would have been obvious. Ans. 17-18, 29-30.

Appellants argue that the Examiner fails to show controlling the shared display module to display to plural users (1) automated browsing modes, and (2) automated browsing activation tags as claimed. App. Br. 13-14. The issue before us, then, is as follows:

ISSUE

Under § 103, has the Examiner erred in rejecting claim 10 by finding that Bjurstrom, Chiu, Buckley, and Borman collectively would have taught or suggested controlling a shared display module to display to plural users (1) automated browsing modes to perform various navigational controls, and (2) automated browsing activation tags?

ADDITIONAL FINDINGS OF FACT

6. We adopt the Examiner's factual findings regarding Borman's disclosure (Ans. 17, 29-30) as our own.

ANALYSIS

On the record before us, we see no error in the Examiner's obviousness rejection of representative claim 10. Apart from merely alleging that the Examiner did not show controlling the shared display module to display automated browsing modes and activation tags to plural users as claimed (App. Br. 13-14), Appellants did not particularly point out errors in the Examiner's factual findings and reasoning in this regard as the Examiner indicates. Ans. 29.

Nevertheless, we see no error in the Examiner's position, for the Examiner relied on Borman for the notion that displaying automated browsing modes by automatically loading and displaying web pages (FF 6) in conjunction with the other cited prior art's teaching of displaying automated browsing activation tags would have been obvious. Ans. 29-30. Not only do we find this position based on the collective teachings of the references reasonable on this record, this enhancement also predictably uses prior art elements according to their established functions—an obvious improvement. *KSR*, 550 U.S. at 417.

We are therefore not persuaded that the Examiner erred in rejecting representative claim 10, and claims 11-13, 17-19, 29, 35, 36, and 40 not separately argued with particularity.

THE OBVIOUSNESS REJECTION OVER BJURSTROM, CHIU, BUCKLEY, AND
TANENBAUM

Regarding claim 26, the Examiner finds that Bjurstrom, Chiu, and Buckley collectively teach or suggest every recited feature except for implementing a scheduling algorithm to process different types of received input device signals in an order, but cites Tanenbaum to cure this deficiency in concluding that the claim would have been obvious. Ans. 20-21, 30-31. Appellants, however, argue that Tanenbaum does not process different types of input signals in an order as claimed. App. Br. 15. The issue before us, then, is as follows:

ISSUE

Under § 103, has the Examiner erred in rejecting claim 26 by finding that Bjurstrom, Chiu, Buckley, and Tanenbaum collectively would have taught or suggested implementing a scheduling algorithm to process different types of received input device signals in an order?

ADDITIONAL FINDINGS OF FACT

7. The Examiner's factual findings regarding Tanenbaum's disclosure (Ans. 21, 31) are undisputed.

8. Tanenbaum notes that if only one CPU is available, a choice has to be made which process to run next. The part of the operating system that makes this choice is the "scheduler," and the algorithm it uses is the "scheduling algorithm." Tanenbaum, at 132 (§ 2.5).

ANALYSIS

We sustain the Examiner's rejection of claim 26 essentially for the reasons indicated by the Examiner. Ans. 30-31. Although Appellants contend that Tanenbaum does not process different types of input signals in an order (App. Br. 15), the Examiner cited Tanenbaum merely to show that the fundamental notion that using a scheduling algorithm to process tasks or "elements" in a particular order in the Bjurstrom/Chiu/Buckley system would have been obvious. Ans. 31; FF 8. On this record, we see no reason why skilled artisans would not so enhance Bjurstrom/Chiu/Buckley's multi-user system with some sort of scheduling functionality, given its simultaneous user interaction and browsing functionality as noted previously. *See* FF 1-5. Such an enhancement would, among other things, impose a priority scheme to processing multiple tasks associated with received input signals from plural users, thus minimizing processing conflicts (*see* FF 1-5, 8)—an application of a known technique to yield predictable results well within the level of ordinarily skilled artisans. *See KSR*, 550 U.S. at 417.

We are therefore not persuaded that the Examiner erred in rejecting claim 26.

CONCLUSION

The Examiner did not err in rejecting claims 1-29 and 31-40 under § 103.

ORDER

The Examiner's decision rejecting claims 1-29 and 31-40 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED